

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

Claims 1 - 18. (Canceled)

19. (New) An apparatus for a Fischer-Tropsch process comprising: a gas inlet, for conducting an inlet gas stream, and at least one product outlet with a reactor there between including a Fischer-Tropsch catalyst, the reactor operable at temperatures of from 175° to 325°C, and a pressure from 1 to 20 atmospheres, and a material, included within the reactor and upstream from the Fischer-Tropsch catalyst, wherein the material is present to bind sulfur contained in the inlet gas stream and does not substantially alter synthesis gas.

20. (New) The apparatus according to Claim 19, wherein the material present to bind sulfur contained in the inlet gas stream comprises an element or compound of an element selected from the group consisting of Co, Fe, Mo, W, Zn, Ni, V, Cd, Re, Mn, Pb, Ag, As, Cr, Sb, and alloys, oxides, and mixtures thereof.

21. (New) The apparatus according to Claim 19, wherein the material present to bind sulfur contained in the inlet gas stream comprises an element or compound of an element selected from the group consisting of Mo, W, Zn, Ni, V, Cd, Re, Mn, Pb, Ag, As, Cr, Sb, and alloys, oxides, and mixtures thereof.

22. (New) The apparatus according to Claim 20, wherein the material present to bind sulfur comprises an oxide.

23. (New) A process for removing sulfur from a synthesis gas in a Fischer-Tropsch reactor that includes:

- i) a gas inlet for conducting an inlet gas stream;
- ii) at least one product outlet, and
- iii) a Fischer-Tropsch catalyst;

the process comprising:

- a) placing a material within the inlet gas stream and upstream from the Fischer-Tropsch catalyst, wherein the material is present to bind sulfur contained in the inlet gas stream and does not substantially alter synthesis gas; and
- b) passing a sulfur-containing synthesis gas over the material, thereby removing at least a portion of the sulfur contained in the synthesis gas prior to introducing the synthesis gas to the Fischer-Tropsch catalyst.

24. (New) The process according to Claim 23, wherein the material present to bind sulfur contained in the inlet gas stream comprises an element or compound of an element selected from the group consisting of Co, Fe, Mo, W, Zn, Ni, V, Cd, Re, Mn, Pb, Ag, As, Cr, Sb, and alloys, oxides, and mixtures thereof.

25. (New) The apparatus according to Claim 23, wherein the material present to bind sulfur contained in the inlet gas stream comprises an element or compound of an element selected from the group consisting of Mo, W, Zn, Ni, V, Cd, Re, Mn, Pb, Ag, As, Cr, Sb, and alloys, oxides, and mixtures thereof.

26. (New) The apparatus according to Claim 24, wherein the material present to bind sulfur comprises an oxide.